



Indian and Northern
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Nunavut District Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

December 2, 2002

Raymond Kasalaq
Senior Administrative Officers
Municipality of Clyde River
P.O. Box 89
Clyde River, NU X0A 0E0

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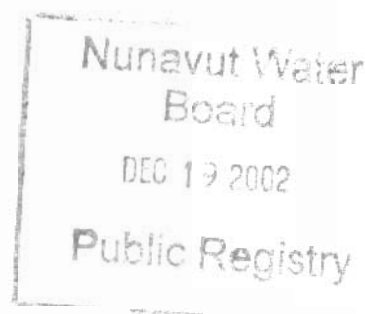
Tel: (867) 975-4289

Fax: (867) 979-6445

Your file - Votre référence

Our file - Notre référence

(Unlicensed)



Re: August 28 , 2002 Municipal Water Inspection - Report

I would like to thank David Arreak for his time and assistance provided during the tour of the Municipality's water use and waste disposal facilities. Attached for your records is the Municipal Water Use Inspection Report along with the Certificate of Analysis Report pertaining to the August 28, 2002 inspection. Considering the limited resources at its disposal, the municipality appears to manage its facilities fairly well. However, there is one (1) issue that must be addressed that relates to the solid waste disposal which is noted in this report.

- 1. Water supply:** No concerns were noted regarding the water intake and supply facility. Further, the attached analytical results relating to samples taken in the vicinity of the intake station indicate that all tested parameters meet the *Guidelines for the Canadian Drinking Water Quality*. Please find attached analysis report. (Figure 1 Refers to Water Source)
- 2. Sewage disposal:** During the time of inspection the sewage lagoon was discharging through the lower valve that it has in place, (annual decant). The inspector questioned how long the valve is left open for, and was told that it was conducted during the month of August, no further information was provided. Samples were collected 92 meter downstream for the lagoon, duplicate samples collected. This community is within the municipal waste water guidelines. However, the attached analytical report reveals sight exception of ammonia (56.0 mg/l vs 2.2 mg/l). (Figure 2 Refers to Sewage Disposal)
- 3. Solid waste disposal:** The inspector observed during inspection, bulky metal waste mixed with combustible household material. Also during the inspection the inspector observed hazardous material (e.g. batteries, waste oil) within both waste disposal sites. There are numerous waste oil drums with hydrocarbon contamination within the solid waste site. To prevent further environmental damage to the surrounding area, it was recommended that, some action be taken to improve this situation. No sample were collected in this area, as it was dry.

Canada

It was further noted that due lack of fencing windblown garbage is scattered within the surrounding area. It was recommended that the community of Clyde River looks into completing the fencing around the perimeter of the dump to limit further environment concerns. (Figure 3, 4, 7, 8 Refers to the Solid Waste & Waste Oil Sites)

4. **Non-compliance of the licence:** Municipality of Clyde River does not currently hold the Water licence required under both the *Nunavut Waters Act* and the *Nunavut Land Claims Agreement* for its municipal water use and waste disposal. It was also noted that Government of Nunavut was assisting the community of Clyde River, and were in process of completing related documents, this community should be licenced soon.

If you have any concerns or questions, please feel free to contact me.

Sincerely,



James Leo Noble
Water Resource Officer
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noblej@inac.gc.ca

cc. Nunavut Water Board, Gjoa Haven, NU
DIAND Water Resources Division, Iqaluit, NU
CG&T, Iqaluit, NU (Doug Sitland)
Baffin Health & Social Services, Iqaluit, NU
EC, Environmental Protection, Yellowknife, NT (Anne Wilson)



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operational Indian Affairs and Northern Development **Attn:** James Lee Noble

Sample ID: 1

Potable Water

Taiga Sample ID: 222663

Client Project:

Sample Type: wastewater

Received Date: 04-Sep-02

Location: Clyde River, NU

Sampling Date: 28-Aug-02

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
Physicals				
Alkalinity	4.1	mg/L	0.3	22-Sep-02
<u>Colour</u>	<u>5</u>		5	06-Nov-02
Conductivity, Specific	28.0	µS/cm	0.3	22-Sep-02
<u>pH</u>	<u>6.69</u>	pH units	0.05	22-Sep-02
Major Ions				
Calcium	1.02	mg/L	0.05	10-Sep-02
Chloride	4.0	mg/L	0.2	17-Sep-02
Hardness as CaCO ₃	5.68	mg/L	0.17	10-Sep-02
Magnesium	0.75	mg/L	0.02	10-Sep-02
Potassium	0.53	mg/L	0.03	11-Sep-02
Silica, Reactive	< 0.02	mg/L	0.02	12-Sep-02
Sodium	2.71	mg/L	0.02	11-Sep-02
Sulphate	3	mg/L	3	02-Oct-02



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- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: James Lee Noble

Sample ID: 2

Potable Water

Taiga Sample ID: 222664

Client Project:

Sample Type: wastewater

Received Date: 04-Sep-02

Location: Clyde River, NU

Sampling Date: 28-Aug-02

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Solids, Total Dissolved	20	mg/L	10	08-Oct-02
Solids, Total Suspended	<u>6</u>	mg/L	3	08-Oct-02
<u>Turbidity</u>	<u>0.9</u>	NTU	0.1	17-Sep-02
<u>Nutrients</u>				
<u>Ammonia as N</u>	<u><0.005</u>	mg/L	0.005	09-Sep-02
<u>Nitrate+Nitrite as N</u>	<u><0.008</u>	mg/L	0.008	09-Sep-02
Organic Carbon, Dissolved	1.4	mg/L	0.5	07-Oct-02
Organic Carbon, Total	1.6	mg/L	0.5	07-Oct-02
Ortho-Phosphate as P	0.003	mg/L	0.002	23-Sep-02
Phosphorous, Dissolved	0.052	mg/L	0.004	20-Sep-02
Phosphorous, Total	0.059	mg/L	0.004	18-Sep-02



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- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D *Attn:* James Lee Noble

Sample ID: 3

Sewage

Taiga Sample ID: 222665

Client Project:

Sample Type: wastewater

Received Date: 04-Sep-02

Location: Clyde River, NU

Sampling Date: 28-Aug-02

Report Status: Final

Approved by:

[Signature]

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Alkalinity	489	mg/L	0.3	02-Oct-02
<u>Colour</u>	<u>350</u>		5	06-Nov-02
Conductivity, Specific	1250	µS/cm	0.3	22-Sep-02
<u>pH</u>	<u>7.39</u>	pH units	0.05	22-Sep-02
<u>Major Ions</u>				
Calcium	8.20	mg/L	0.05	10-Sep-02
Chloride	71.5	mg/L	0.2	15-Oct-02
Hardness as CaCO ₃	46.4	mg/L	0.17	10-Sep-02
Magnesium	6.30	mg/L	0.02	10-Sep-02
Potassium	25.9	mg/L	0.03	11-Sep-02
Silica, Reactive	13.8	mg/L	0.02	12-Sep-02
Sodium	88.4	mg/L	0.02	11-Sep-02
Sulphate	16	mg/L	3	02-Oct-02



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- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operational Indian Affairs and Northern Development, Attn: James Lee Noble

Sample ID: 4

Sewage

Taiga Sample ID: 222667

Client Project:

Sample Type: wastewater

Received Date: 04-Sep-02

Location: Clyde River, NU

Sampling Date: 28-Aug-02

Report Status: Final

Approved by:

[Signature]

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Solids, Total Dissolved	433	mg/L	10	08-Oct-02
<u>Solids, Total Suspended</u>	<u>103</u>	mg/L	3	08-Oct-02
<u>Turbidity</u>	<u>95.5</u>	NTU	0.1	17-Sep-02
<u>Nutrients</u>				
<u>Ammonia as N</u>	<u>56.0</u>	mg/L	0.005	09-Sep-02
<u>Nitrate+Nitrite as N</u>	<u>17.9</u>	mg/L	0.008	09-Sep-02
Organic Carbon, Dissolved	85.0	mg/L	0.5	07-Oct-02
Organic Carbon, Total	140	mg/L	0.5	07-Oct-02
Ortho-Phosphate as P	10.1	mg/L	0.002	23-Sep-02
Phosphorous, Dissolved	12.8	mg/L	0.004	20-Sep-02
Phosphorous, Total	14.0	mg/L	0.004	18-Sep-02



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- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D **Attn:** James Lee Noble

Sample ID: 6 *Seunge*

Taiga Sample ID: 222668

Client Project:

Sample Type: wastewater

Received Date: 04-Sep-02

Location: Clyde River, NU

Sampling Date: 28-Aug-02

Report Status: Final

Approved by: *[Signature]*

Test Parameter	Result	Units	Detection Limit	Analysis Date
Physicals				
Solids, Total Dissolved	393	mg/L	10	08-Oct-02
<u>Solids, Total Suspended</u>	<u>177</u>	mg/L	3	08-Oct-02
<u>Turbidity</u>	<u>66.1</u>	NTU	0.1	17-Sep-02
Nutrients				
<u>Ammonia as N</u>	<u>60.9</u>	mg/L	0.005	09-Sep-02
<u>Nitrate+Nitrite as N</u>	<u>0.153</u>	mg/L	0.008	12-Sep-02
Organic Carbon, Dissolved	58.0	mg/L	0.5	07-Oct-02
Organic Carbon, Total	76	mg/L	0.5	07-Oct-02
Ortho-Phosphate as P	7.80	mg/L	0.002	23-Sep-02
Phosphorous, Dissolved	10.8	mg/L	0.004	20-Sep-02
Phosphorous, Total	12.3	mg/L	0.004	18-Sep-02



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Your file - Votre référence

August 28, 2002

Our file - Notre référence

Community Site Inspections / Waypoint Information

Clyde River 1	Sample One, Reservoir / Truck Fill	N70 28 57.4 W68 36 53.5
Clyde River 2	Waste Disposal (Main Dump)	N70 28 09.9 W68 38 03.9
Clyde River 3	Sample Two, Sewage Disposal	N70 28 10.7 W68 38 00.9
Clyde River 4	Solid Waste Disposal (Metals)	N70 28 08.5 W68 37 47.8
Clyde River 5	Community Tank Farm	N70 28 06.9 W68 35 57.7

James Leo Noble
Water Resource Officer
INAC, Nunavut District
Iqaluit, Nu.



(Figure 1)

- Clyde River, Water Supply, Site Located N70 28 57.4 W68 36 53.5



(Figure 2)

- Clyde River, Sewage Disposal, Site Located N70 28 10.7 W68 38 00.9



(Figure 3)

- Clyde River, Solid Waste Disposal (Main Dump) Site: N70 28 09.9 W68 38.03.9



(Figure 4)

- Clyde River, Solid Waste Disposal (Metal Dump) Site: N70 28 08.5 W68 37 47.8



(Figure 5)

- Clyde River, Community Tank Farm, Site Located N70 28 06.9 W68 37 47.8



(Figure 6)

- Clyde River, Community Tank Farm, Site Located N70 28 06.9 W68 37 47.8



(Figure 7)

- Clyde River, “Waste Oil Drums Shows Evidence of Leaks”



(Figure 8)

- Clyde River, “Waste Oil Drums Shows Evidence of Leaks”



Indian and Northern
Affairs Canada

Affaires Indiennes
et du Nord Canada

MUNICIPAL WATER USE INSPECTION REPORT

Date: August 28, 2002

Licensee Rep. (Name/Title): David Arreak, Hamlet Foreman

Licensee: Municipality of Clyde River

Licence No.: Unlicensed, File # NWB3CLY

WATER SUPPLY

Source(s): Water Lake

Quantity used: Unable to locate Meter

Owner:/Operator: Municipality

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Intake Facilities: A

Storage Structure: A

Treatment Systems: A

Chemical Storage: A

Flow Meas. Device: NI

Conveyance Lines: NA

Pumping Stations: A

Comments: During the time of inspection, there were no copies of the chlorine records, requested copies of these documents but was unsuccessful, no major issues to note with respect the water supply

WASTE DISPOSAL

Sewage: Sewage Treatment System (Prim./Sec/Ter.): Primary, Discharge over land to ocean

Natural Water Body:

Continuous Discharge (land or water):

Seasonal Discharge: X

Wetlands Treatment:

Trench:

Solid Waste: Owner/Operator: Municipality

Landfill:

Burn & Landfill: x

Other:

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Discharge Quality: A / U

Decant Structure: A

Erosion: A

Discharge Meas. Device: NA

Dyke Inspection: A

Seepages: A

Dams, Dykes: A

Freeboard: A

Spills: None Reported

Construction: A

O&M Plan: NA

A&R Plan: NA

Periods of Discharge: U

Effluent Discharge Rate: Not Measured

Comments: With respect to the sewage treatment, very little seepage occurs from the structure of lagoon. Siphoning from the lagoon was quit apparent from the previous months, as it left an obvious path - (runoff). It was noted that the valve was still open during the time of inspection. When the inspector questioned as to how long it was it was opened, it was replied that it usually open for the month of August. No further details to note. As for the solid waste disposal site; recommendations were made, with respect to the ground contamination at the waste oil storage site, to look into having it cleaned. Also bulky metal waste site, still has a lot of batteries laying around, that aren't neutralized, a plan to properly store items such as batteries and other hazardous material should be in place for this community. Burn and landfill site, once again a lot of wind blown garbage within the down slope of the main dump.

FUEL STORAGE

Owner/Operator: Aarruja Development Corp. / GN

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Berms & Liners: U

Water within Berms: A

Evidence of Leaks: U

Drainage Pipes: A

Pump Station & Catchment Berm: NA

Pipeline Condition: NA

Not Applicable:

Condition of Tanks: NI

SURVEILLANCE NETWORK PROGRAM (SNP)

Samples Collected Hamlet: None

INAC: Raw water, Sewage discharge,

Signs Posted SNP: None

Warning: None

Records & Reporting: None

Geotechnical Inspection: None

Non-Compliance of Act or Licence: Like most communities, this is another community being assisted by the Government of Nunavut with the process of the Water Licence Application and should be licenced shortly.

James Leo Noble

Inspector's Name

Inspector's Signature